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(770)433-8211

Celia Peressini, Senior Corporate Counsel
Home Depot Store Support Center
2455 Paces Ferry Road N.W.
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December 21, 2006

DELIVERY VIA OVERNIGHT MAIL

Ms. Kim Muratore
Case Developer (SFD-7-B)
U.S. EPA, Region 9
75 Hawthorne St.
San Francisco, CA 94105

Re: Request for Information
San Fernando Valley Area I/North Hollywood Superfund Site
North Hollywood, California

Dear Ms. Muratore:

This letter is being provided on behalf of Home Depot U.S.A., Inc. ("Home Depot") and in response to the letter dated November 22, 2006 from Frederick Schauffler. As you discussed with Fay Howard on December 12, 2006 some of the supplemental information requested in the most recent letter was previous submitted to you under cover dated May 12, 2006. However, for ease of review, I am resubmitting the information to you with this letter.

Additionally, I understand from your telephone conversation with Fay Howard on December 18, 2006, that any supplemental information that's been gathered thus far should be forwarded now with the understanding that any remaining documents will be sent to you by January 12, 2007 under separate cover.

If you have any questions, please do not hesitate to contact me at 770/384-5695.

Sincerely,

Celia J. Peressini
Senior Corporate Counsel

Attachments

Previous Questions

1. The property, once one large parcel, owned by Allied Signal consisted of 15 acres. Home Depot only purchased 11.7 acres of the property. The remaining acres were retained by Allied until the sale to Public Storage. The eastern portion of the property was sold to Home Depot (east-side) and Public Storage (west- side) in 1993 and 1997, respectively. (See letter dated June 14, 1994 attached)

17. The contact information for Mark Smith is as follows:

Mark F. Smith
Sales Associate hired on October 23, 2000
Home Depot U.S.A., Inc.
11600 Sherman Way
North Hollywood, California 91605
Telephone No. (818) 764-9600

Tim Rowe
Store Manager hired on November 26, 2001
Home Depot U.S.A., Inc.
11600 Sherman Way
North Hollywood, California 91605
Telephone No. (818) 764-9600

Arthur J. Lazo
District Asset Protection Manager hired on January 4, 1999
Home Depot U.S.A., Inc.
11600 Sherman Way
North Hollywood, California 91605
Telephone No. (818) 764-9600

19. A copy of the scaled map of the Facility is enclosed

20. Company records are still being reviewed to determine if additional environmental or technical information is available in the company files.

24. A more detailed report containing spill information is being prepared.

# California Regional Water Quality Control Board
## Los Angeles Region

**Winston H. Hickox**
*Secretary for Environmental Protection*

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/~rwqcb4

**Gray Davis**
*Governor*


**TO:** **File**

**FROM:** **Valerie Jahn**

**DATE:** March 26, 2001

**SUBJECT:** **INSPECTION REPORT: FORMER ALLIED SIGNAL (NORTH HOLLYWOOD) PUBLIC STORAGE/HOME DEPOT FACILITY 11600 SHERMAN WAY, NORTH HOLLYWOOD, CALIFORNIA, 91605 (FILE NO. 111.0180)**

**Purpose:**

The purpose of the inspection was to document site conditions and gather information regarding various manufacturing processes and the associated chemicals/substances used and stored at the site. The inspection focused on both current and previous chromium and heavy metal usage at the site, quantities of these substances used and stored onsite, methods of waste disposal and subsequent potential for impacting/contributing to such substances in soil and groundwater beneath the site.

Regional Board staff visited the above-referenced facility on March 2, 2001. Ms. Valerie Jahn was accompanied by additional Regional Board staff including, Mr. Dixon Oriola, Mr. David Young and Ms. Angelica Castaneda. Regional Board staff met with Mr. Benny DeHghi, of Honeywell (formerly Allied Signal) to discuss current and former activities at the site and gather information related to material use and storage. Mr. DeHghi is the Manager of Remediation & Evaluation Services at Honeywell, located at 2525 West 190$^{th}$ Street in Torrance, and can be contacted at (310) 512-2296.

Following this discussion, the above-mentioned Regional Board staff conducted a facility inspection at the former Allied Signal (North Hollywood) site. This site visit was a follow-up inspection to the meeting between Mr. DeHghi and Regional Board staff conducted on February 23, 2001. The February meeting focused on identifying Allied Signal's (North Hollywood Site) potential contribution to the regional chromium contamination present in groundwater in the San Fernando Valley.

**Background:**

According to Mr. DeHghi, Bendix/Allied Signal operated at the property from 1941 until 1990-91. Records indicate that prior to construction of the North Hollywood facility, the land was used as agricultural land and was bordered to the west by two dairy farms. The former North Hollywood facility (NHF) was initially operated by the Bendix Corporation (a division of Garrett Air Research), which was acquired by then Allied Corporation or Allied Electronics in 1982. Allied Electronics and the Signal Companies subsequently merged in 1985. Honeywell recently purchased Allied Signal. Mr. DeHghi, who joined Allied in 1993, was not completely familiar with the corporate history but said he would contact the appropriate legal/real estate people to obtain the information requested by Regional Board staff.

The former Allied Signal site is situated along Sherman Way, in the city of North Hollywood. This site is surrounded by industrial and commercial properties. The property, once one large parcel, was divided

into three parcels for sale and redevelopment. The NHF property (totaling 23 acres) formerly extended all the way to Lankershim Boulevard. The western portion (8 acres) of the property was sold to Kaiser Permanente facility. The eastern portion of the property was subsequently divided into two additional parcels, which were sold to Home Depot (east-side) and Public Storage (west-side) in 1995 and 1997, respectively.

**Observations:**

According to Mr. DeHghi, former NHF activities conducted on the western portion of the property were limited to research and development (R & D) conducted by an engineering group. However, Mr. DeHghi could not provide detailed information regarding either operations, or subsequent chemical use/storage and waste disposal methods employed in this location. Mr. DeHghi did indicate that plating operations were reportedly never conducted in the area.

The Kaiser portion of the NHF property is still subject to RWQCB oversight under the Superfund VOC Investigation. As such, Mr. DeHghi indicated that several groundwater-monitoring wells remain on the property. In addition, soil vapor extraction is currently being employed to remediate the vadose zone. Although Regional Board staff was unable to conduct an inspection of the Kaiser operations, Mr. DeHghi indicated that Allied Signal (Honeywell) has negotiated access to the facility for purposes of operation and maintenance activities. Therefore, Regional Board staff and Mr. DeHghi could provide advance notice to tour the subject portion of the former NHF property.

Regional Board staff conducted an inspection of the NHS property now redeveloped as Public Storage and Home Depot. The majority of the Public Storage Corporation facility is occupied by a large storage warehouse, which also houses the businesses' administrative offices. In addition, there is one smaller auxiliary building located along the western boundary of the site, adjacent to Kaiser facility. This warehouse has been divided into numerous smaller rental spaces. No hazardous materials are used or stored onsite in conjunction with this enterprise.

Home Depot occupies the eastern-most portion of the former NHF. This enterprise consists of a large home improvement warehouse and public parking lot. Given the nature of the business (home improvement), this operation maintains numerous hazardous chemicals (e.g. paints, solvents, adhesives, pesticides/herbicides, etc.) for resale to consumers. It is presently unknown whether any of the chemicals stored in conjunction with this enterprise contain significant quantities of the metal alloys (e.g. chromium, nickel, cadmium, silver, copper, tin, manganese and zinc, etc.) currently being investigated by this Regional Board. Undoubtedly, Home Depot received indemnification of environmental contamination at the site as a condition of purchase and redevelopment.

The photographs (and narratives) provided with this memorandum include relevant facility processing areas and are intended to document chemical/substance use and storage at the site.

**Supplemental Information:**

Primary operations at the former NHF involved the manufacturing and repair of hydraulic and pneumatic pumps and other aircraft parts for the aerospace industry. Reportedly, sonar research was also conducted at the site for application in U.S Navy submarines. Chemicals used onsite reportedly included various heavy metals, acids, cyanide, petroleum and chlorinated cleaning solvents, motor fuels and hydraulic test oils. Historical information regarding quantities of chromium

and other heavy metal alloys used and stored on-site, as well as the subsequent waste generation and disposal, are thus far unknown. Mr. DeHghi is currently attempting to contact the appropriate legal/real estate people to obtain the name/names of individuals who would be able to provide the required chemical use/handling information.

The former NHF complex contained two main structures. The largest building, Plant 1, was situated in the center portion of the property now occupied by Public Storage Corporation. This building was constructed in 1941. Plant 1 contained metal mill and bore machines, machine coolant reservoirs and sumps, plating operations, solvent degreasers, heat treatment quench pits, sonar testing tanks and exterior wastewater clarifiers and underground storage tanks (USTs). These USTs were used to store gasoline, hydraulic oils, and solvents.

Plant 2, located east of Plant 1, was situated in the center portion of the property now occupied by the Home Depot. Plant 2 was erected in 1949 and contained plating and manufacturing operations, a solvent degreaser, a data processing center, and administrative offices. In addition, Plant 2 maintained one clarifier and one UST. Historical records indicate that this tank was used to store waste oils and solvents.

Smaller support structures, including an assembly/testing building, an engineering laboratory, several hazardous waste storage areas and a maintenance shop, were subsequently erected in the southern portion of the site. In addition, the Paint Shop (situated south of the maintenance shop) could also be considered a potential source of heavy metals.

The site has been the subject of extensive subsurface investigation since 1984. As a result, shallow soil, primarily impacted with petroleum hydrocarbons, chlorinated hydrocarbons and chromium, was discovered. The majority of this impacted soil was reportedly excavated and removed for disposal off-site. In addition, shallow petroleum hydrocarbon-impacted soil was excavated and remediated on-site using Low Temperature Thermal Desorption (LTTD).

According to Mr. DeHghi, the NHF was demolished in 1990 or 1991. In 1993, an extensive soil assessment was conducted. The assessment provided initial site-wide characterization of total petroleum hydrocarbon (TPH), VOC, heavy metal and chromium contamination at the site. Heavy metal and chromium impacts were detected in the vicinity of both Plant 1 and Plant 2 operations, with the highest concentrations encountered adjacent to former Plant 1. Laboratory results, geologic cross sections, etc were presented in the July 1993 investigation report issued by Groundwater Technology, Inc (GTI). Furthermore, results of a concrete slab characterization and sampling program were provided in an August 1993 report issued by GTI. Additional assessment was performed in June/July 1993 to further characterize chromium-impacted soil. Results of this investigation were presented in the "Step-out and Deeper Soil Boring Report" issued by GTI in September 1993.

Mr. DeHghi indicated that some remedial excavation of chromium-impacted soil was performed in conjunction with closure activities/redevelopment negotiations. In addition, additional excavation was reportedly performed, as a health & safety precaution, during construction of the Public Storage facility, now situated in the former Plant 1 location.

The entire property was once included in the USEPA 1986-1996 Superfund Investigation for volatile organic compounds (VOCs) in the San Fernando Valley. However, following characterization, monitoring and remedial activities, the eastern two-thirds of the property (Home Depot/Public Storage Corporation) received soil closure from the RWQCB (August 1997). In conjunction with those 1997 closure activities, this RWQCB directed Allied Signal to conduct two additional downgradient groundwater-sampling events at the site. These samples were to be used to generate sufficient data regarding on-site groundwater conditions with respect to chromium/hexavalent chromium. However, Regional Board files do not contain any documents reporting results of a subsequent groundwater investigation.

**Conclusions:**

1. Bendix/Allied Signal has reportedly operated at the property from 1941 until 1990-91. Records indicate that prior to construction of the NHF, the land was used as agricultural land and was bordered to the west by two dairy farms.

2. Historical information regarding quantities of chromium and other heavy metal alloys used and stored on-site, as well as subsequent waste generation and disposal, are thus far unknown. The site contact for Bendix/Allied Signal NHS facility (Mr. DeHghi) has been unable to provide detailed information regarding corporate history and site operations (as such, no chemical use questionnaire has not been completed). Mr. DeHghi is currently attempting to contact the appropriate legal/real estate people to obtain the name/names of individuals who would be able to provide the required chemical use/handling information.

3. Current Public Storage Corporation/Home Depot operations do not appear to be a contributor to the chromium/metal impacts currently being investigated by this Regional Board.

4. The portion of the property occupied by Kaiser Permamente could not be accessed for inspection at the time of our Regional Board visit. Therefore, no determination could be made regarding the condition of this portion of the former NHF. Information regarding quantities of chromium and other heavy metal alloys currently used and stored on-site, as well as subsequent waste generation and disposal, still needs to be obtained.

5. Site characterization has documented that former NHF plating operations impacted soil with petroleum hydrocarbons, VOCs and chromium/hexavalent chromium plating waste. However, extensive characterization and remedial activities have already been conducted at the site. As a result, the eastern two-thirds of the property (Home Depot/Public Storage Corporation) received soil closure from the RWQCB.

6. The Kaiser portion of the NHS property is still subject to RWQCB oversight under the Superfund VOC Investigation. Vapor extraction is currently being employed to remediate soil beneath the Kaiser site. In addition several groundwater monitoring are maintained at the property. Regional Board files do not contain any documents reporting recent results of remedial and groundwater monitoring activities.

7. Additional information regarding current chromium and heavy metal concentrations needs to be gathered in order to generate sufficient data regarding current on-site groundwater conditions with respect to chromium/hexavalent chromium. Furthermore, the Regional Boards 1997 directive to

conduct two additional downgradient groundwater sampling events at the site still needs to be fulfilled.

**Recommendations:**

1. Historical information regarding quantities of chromium and other heavy metal alloys used and stored on-site, as well as subsequent waste generation and disposal, needs to be obtained as soon as possible. A follow-up inquiry should be directed at Mr. DeHghi. Enforcement action may be necessary to expedite receipt of this information from Bendix/Allied Signal (now Honeywell).

2. A follow-up inspection of the Kaiser Permamente portion of the property should be scheduled. Furthermore, the Regional Board should request information regarding quantities of chromium and other heavy metal alloys currently used and stored on-site. Information with respect to waste generation and disposal should also be requested.

3. The Kaiser portion of the NHF property is still subject to RWQCB oversight under the Superfund VOC Investigation. Vapor extraction is currently being employed to remediate soil beneath the Kaiser site. In addition several groundwater monitoring are maintained at the property. Regional Board files do not contain any documents reporting recent results of remedial and groundwater monitoring activities.

4. Site characterization has already documented chromium and other heavy metal alloys (in addition to VOCs) in soil and groundwater beneath the site. Based on available information, additional subsurface investigation may/may not be warranted at the site.

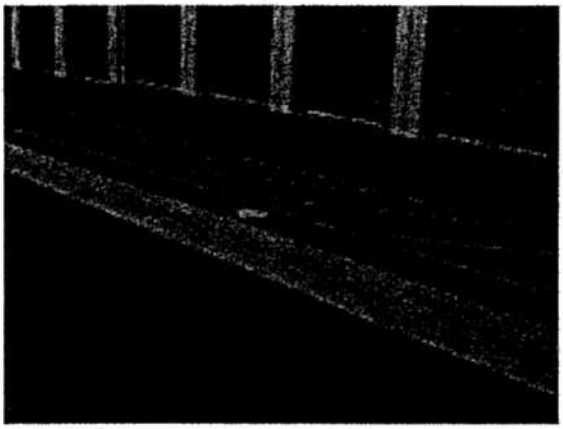
5. Additional downgradient groundwater data, requested by the Regional Board in 1997, should be collected. Furthermore, existing groundwater monitoring wells, located at the Public Storage, Home Depot and Kaiser facilities, should be sampled to obtain data with respect to the current condition of groundwater beneath the site. This data should help determine whether additional characterization is required at the former NHS property.

**Photographs:**

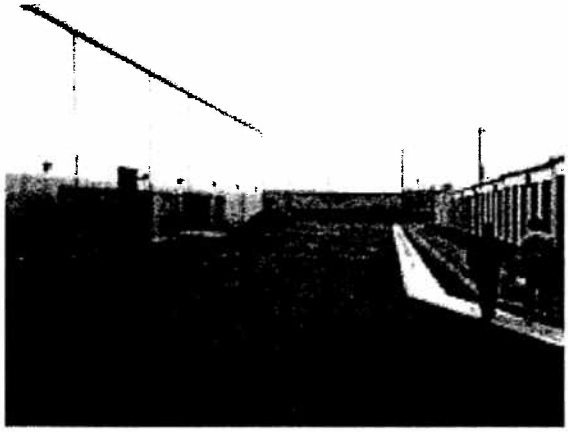
View of Public Storage's facility from along Sherman Way

Former Plant 1 production/plating area, parking lot and auxiliary rental space, looking south from Sherman Way

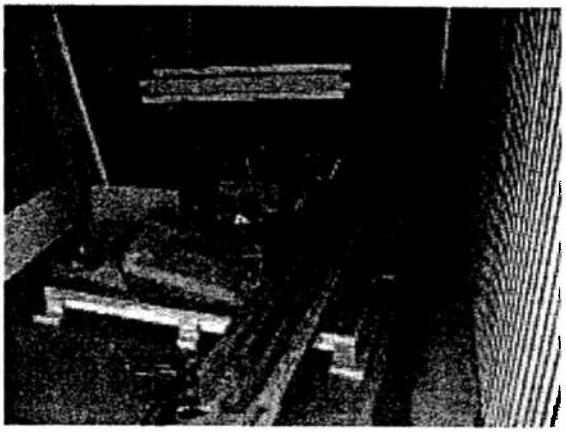
Public Storage warehouse, parking lot and auxiliary rental space, looking south from Sherman Way (former Plant 1)



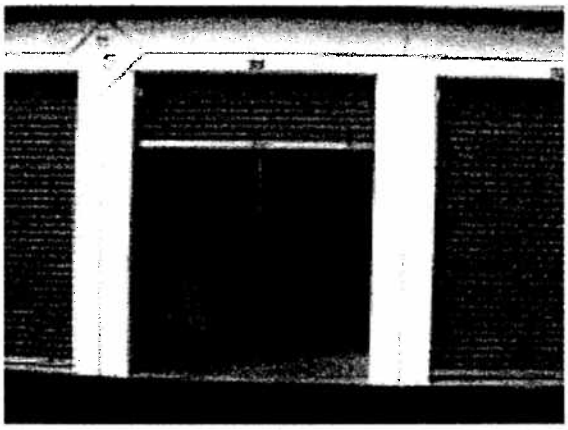
Former Plant 1 production/plating area, rental spaces (background) with existing well GW-2 (foreground)



Former Plant 1, Public Storage warehouse, parking lot and rental spaces, looking south from Sherman Way



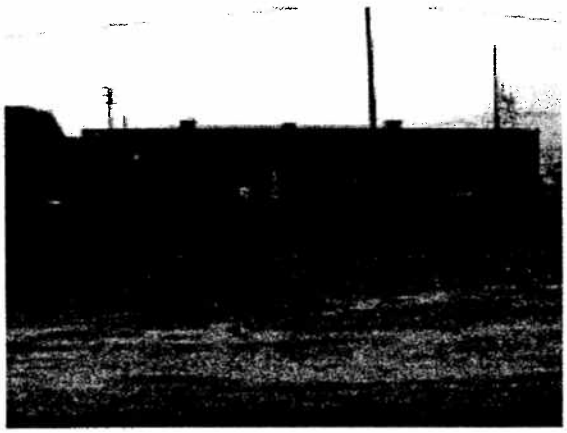
Former Plant 1, Storage space # 33, used for dry storage (not rented) due to existing well GW-3(covered)



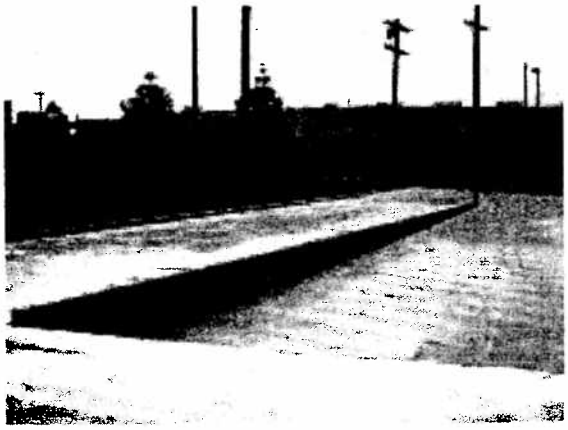
Public Storage rental space # 33, with existing well inside

Southern boundary of Public Storage facility, former Plant 1 chemical/waste storage, maintenance and paint shops

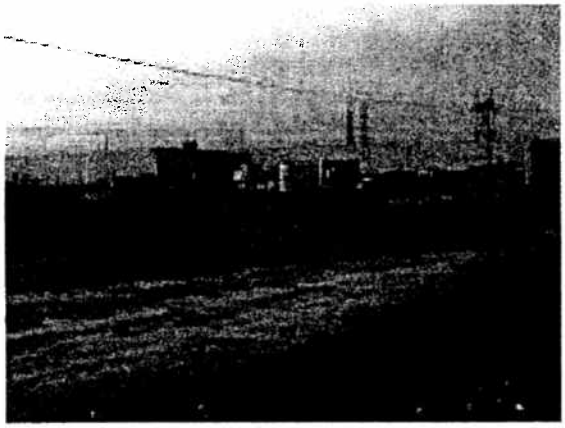
South-side of main Public Storage warehouse with existing well GW-1



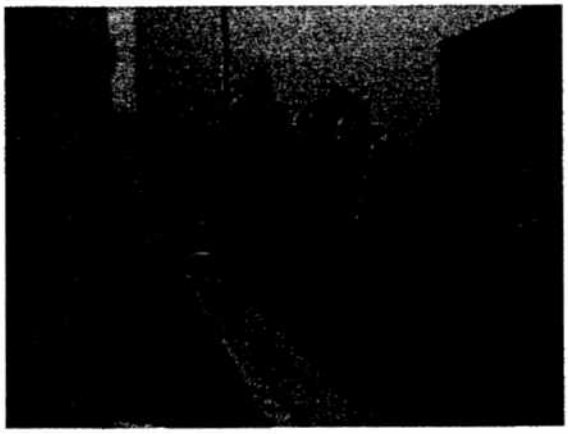
View south from Public Storage property, with neighboring business in background



View southeast from Public Storage property, with neighboring business in background



View southwest from Public Storage property, with neighboring business in background



Former Plant 1 Area, property line between Public Storage facility and Home Depot

Former Plant 1 Area, property line between Public Storage facility and Home Depot

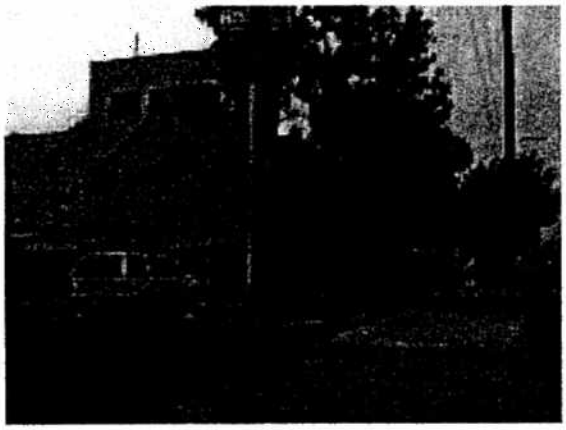
View of property line between Public Storage facility (right) and Kaiser Permamente (left)

Former Plant 1/Plant 2 Areas, property line between Public Storage and Home Depot

Former Plant 2, Home Depot and public parking lot from Sherman Way

View from across Sherman Way, Public Storage property and adjacent Kaiser Permamente

Former Plant 2, Home Depot and public parking lot from Sherman Way



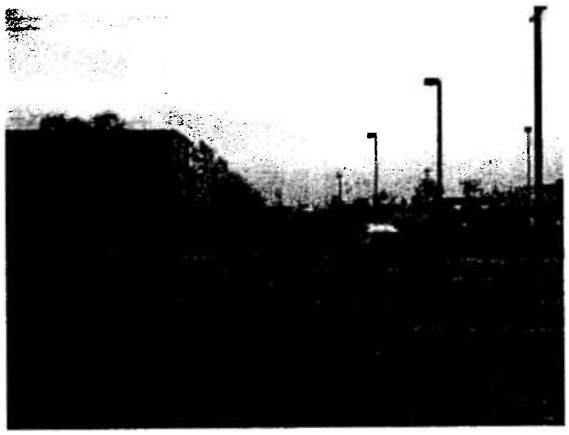
View of Kaiser Permamente property from Public Storage facility along Sherman Way

View of Kaiser Permamente property located west of Former Plant 1

View of Kaiser Permamente property from across Sherman Way

View of Kaiser Permamente property from across Sherman Way

View of neighboring business (Avibank) located east of Home Depot



View of property line between Avibank and Home Depot (Former Plant 2)

ADVANCED
SCIENCES, INC.

(1)

June 14, 1994

Mr. Dan Hatch
Home Depot U.S.A., Inc.
601 So. Placentia
Fullerton, California 92631

**Subject:** Review of Remedial Action Plans
AlliedSignal Inc. Site
11600 Sherman Way
North Hollywood, California

Dear Mr. Hatch:

In response to your letter dated March 14, 1994, Advanced Sciences, Inc. (ASI) is pleased to provide the following review, comments and recommendations of existing data for the North Hollywood AlliedSignal Inc. (Allied) facility including the "Remedial Action Plan - Shallow Soil Impacted by Total Petroleum Hydrocarbons" and "Remedial Action Plan - Shallow Soil Impacted by Volatile Organic Compounds", both dated May 1994 and prepared for Allied by hydrologue, Inc. for the property located at 11600 Sherman Way in North Hollywood. ASI understands that Home Depot U.S.A., Inc. (Home Depot) has entered into escrow with Allied to purchase 11.7 acres of the 15-acre property and plans to construct a new retail outlet at this North Hollywood location. Allied will retain a portion of the west side of the property.

ASI has reviewed the available documents provided by Allied, Home Depot and its representatives relative to site investigations on this property. ASI has been provided with a portion of the Real Estate Purchase Agreement and Joint Escrow Instructions (pages 13-19) and has received and reviewed two file boxes (15¼ L x 12¼ W x 10½ H) of reports describing evaluations of the environmental site conditions and potential areas of contamination. We have also received a letter report from Mr. Paul J. Geiger of Geiger and Weber, prepared by Law/Crandall dated March 2, 1994. The Law/Crandall letter report summarizes their findings from review of files located at the California Regional Water Quality Control Board and a discussion with the regulator, Mr. Jay Das, responsible for oversight of the Allied facility.

The portions of the Joint Escrow Instructions provided to ASI indicate that the soil on this property may contain petroleum hydrocarbons, and volatile organic compounds (VOCs), and the groundwater may contain VOCs. As between Allied and Home Depot, Allied has agreed to indemnify Home Depot of responsibility for the remediation of these contaminants in the soil and groundwater. This document continues by stating that remediation may include excavation of petroleum hydrocarbons with concentrations >1000 mg/kg and installation of a soil vapor extraction system to remediate the VOCs.

4909 Murphy Canyon Road, Suite 500 San Diego, CA 92123-4301 (619) 560-8552 FAX (619) 560-8538

Based on our review, Allied has employed a variety of environmental consultants utilizing a variety of approaches to evaluate this complex site. Their reports summarize the data and indicate that the North Hollywood property had been in operation since about 1941. During that time a variety of chemicals have been used including petroleum fuels, lubricant oils, coolants, acids, chlorinated solvents, heavy metals, and other potentially hazardous chemicals. In addition, the site is located within a larger Superfund site associated with groundwater contaminated with chlorinated organic compounds at a depth of about 250 feet. A summary of some of the major areas of the Allied property where contamination has been identified are summarized in Attachment 1. Our review includes an evaluation of all of the potentially contaminated areas of the property including the adjacent approximately 4-acre parcel to be retained by Allied. This additional review was conducted to assess the potential for contaminants in the excluded areas to impact the proposed Home Depot parcel during and following remediation activities.

In general, a review of the two Remedial Action Plans (RAPs) indicates that the plans are very generalized in nature and do not completely address the contaminants that are present on the site. Based upon reviews of investigations conducted at the site and a comparison to this plan, it is apparent that much of the shallow TPH contaminated soil has other contaminants in it such as volatile chlorinated hydrocarbons (referenced as volatile organic compounds or "VOC's" ) and hexavalent chromium. The Total Petroleum Hydrocarbon (TPH) RAP does not describe the treatability of different types of petroleum hydrocarbons and other contaminants (such as chlorinated hydrocarbons and hexavalent chromium) that are likely to be encountered in the shallow soils of the site. It is possible that not all shallow petroleum hydrocarbons at the site can be treated using the proposed treatment system. The TPH RAP only addresses TPH-contaminated soil at the subject site. The Volatile Organic Compound (VOC) RAP is also very generalized and does not specifically address the actual zones of soil impacted by chlorinated hydrocarbons. In addition, ASI is concerned that the proposed soil and soil-gas action levels are above maximum detected VOC concentrations found at the site.

## ANALYSIS OF THE TPH REMEDIAL ACTION PLAN

The TPH RAP describes methods of excavating TPH impacted soil and treating it with the proposed Low Temperature Thermal Desorption (LTTD) system before it is replaced in lifts back into the excavated areas of the property. In most of the "Major Areas of TPH Impacted Soil" to be excavated and treated, additional contaminants (and concentrations) other than TPH also occur. The RAP does not identify the type of substance/product (i.e., hydraulic fluid, waste oil) that may have been the source of the TPH impacted soil and its concentration. The RAP has not provided supporting documentation for treatment of the additional contaminants, or indicated that post-treatment sampling will be performed to document the effectiveness of the remediation process. The treatability of each different TPH substance and the non-TPH contaminants (specifically VOC's and hexavalent chromium) using the proposed LTTD system must be provided for each area. ASI has identified some of the known non-TPH contaminants and TPH substances in TPH-affected shallow soil and they are described in detail in Attachment 1.

Allied must attempt to identify the unknown TPH substances and non-TPH contaminants and conduct analyses for the most likely constituents during excavation and following treatment to prevent replacement of soil that may still be contaminated. At a minimum, the treatability of hydraulic oil, Skydrol (hydraulic oil), leaded and unleaded gasoline, kerosene, naphthanic/paraffinic hydrocarbon, and waste oil (identify type of oil) must be supported with proper documentation. Some of the petroleum hydrocarbons used on the property may not be treatable using the LTTD system. In addition, ASI has not been able to identify the specific hydrocarbon products resulting in elevated TPH concentrations in soil for all of the areas to be excavated and treated. These areas include the Vapor Degreaser, Plant 1 Plating area, Backwash Sump, and Heat Treatment areas. The TPH product(s) that may have been the source(s) of the TPH impacted soil should be identified in each of these areas. The treatability of these products must also be evaluated.

In addition to TPH, the treatability of chlorinated hydrocarbons, hexavalent chromium, and methyl ethyl ketone (MEK) also must be assessed. Chlorinated hydrocarbons have been identified within TPH-impacted shallow soil in the Former Tanks 2 through 5, Vapor Degreaser/Plant 1 Plating, Skydrol, Overlap, Parts Cleaning Room, Military Aircraft Assembly, and Former Tank 11 areas. MEK occurs within TPH-impacted shallow soils in the Tank 8 area. Hexavalent chromium occurs with TPH-impacted soil in the Vapor Degreaser/Plating areas of Plant 1.

ASI recommends the following actions to improve the TPH RAP.

- The need for excavation permits from the South Coast Air Quality Management District must be reassessed based upon the chlorinated hydrocarbon and MEK impacted soil that will be encountered during excavation activities. Air monitoring for VOC's during remediation activities must also be addressed.

- A detailed description of how the excavation soils will be sampled and handled must be provided. The minimum samples per excavation versus excavation size and proposed sampling locations within the excavations should be provided.

- A description of how often the treated soil will be sampled for TPH (EPA 418.1) and the minimum samples per volume treated must be provided. Due to the excavation and treatment of soil contaminated with VOC's and hexavalent chromium, the treated soil must also be sampled and analyzed for these contaminants and any others identified in each of the "Major Areas".

- Excavated soil from each area must be batched and treated separately from excavated soils from other areas within the subject site. Separate soil stockpiles must be maintained at all times, treated, and sampled separately.

- Under no circumstances should any of the soil excavated from the adjacent Allied parcel be allowed to be stockpiled, treated, or used as backfill material on the proposed Home Depot parcel. This is a significant issue, especially for soils

  excavated from the Vapor Degreaser/Plating area of Plant 1 which has high concentrations of hexavalent chromium and chlorinated hydrocarbons.

- A detailed description should be provided of the proposed depths of excavation in each area. An estimate should also be provided of the minimum depth and maximum TPH concentration to be left in place, based upon the proposed depth of excavation in each area.

- The TPH cleanup level for soils shallower than 20 feet should be 100 mg/kg rather than 1,000 mg/kg due to the possible re-excavation of remediation areas during construction of the proposed Home Depot facility. Soils with TPH concentrations above 100 mg/kg can be readily excavated at depths less than 20 feet.

## ANALYSIS OF THE VOC REMEDIAL ACTION PLAN

This section describes our analysis and comments concerning the VOC RAP. This RAP describes the installation of multi-level gas (MLG) probes, pilot testing to evaluate the feasibility of vapor extraction to remediate deeper VOCs, and the installation of groundwater monitoring wells for future groundwater monitoring activities. Analysis, comments, and suggested changes are presented by page and section beginning with pages 5 and 6, where discussion of the RAP procedures begin.

**Page 5, Section 5.** The proposed soil action levels (SOAL) for chlorinated hydrocarbons are higher than most of the actual concentrations detected in the soil beneath the site. The proposed SOALs are higher than the maximum chlorinated hydrocarbon concentrations detected in the soils beneath the Skydrol, Vapor Degreaser/Plant 1 Plating, and Former Tanks 2 through 5/Deep-Hole Boring Machine Sump Areas. The proposed SOALs are slightly below the maximum chlorinated hydrocarbon concentrations detected in soil beneath the Overlap and Tank 11 areas. It appears that the proposed SOALs may be an order of magnitude too high based on potential health risks such as for construction workers performing excavation activities on the site. If these proposed SOALs presented in the RAP were approved, then minimal or no remediation would be required at the subject site.

**Page 6, Section 5.** The proposed soil gas action levels (SGAL) are higher than most of the maximum chlorinated hydrocarbon concentrations detected in a soil gas survey conducted by Groundwater Technology, Inc. (GTI). The calculated SGALs appear to be several orders of magnitude too high. It is possible that the RWQCB will not approve these high SGALs due to the possible public use of the property and potential risk of public exposure to the VOCs at the site.

Industry-accepted scientific references including health risk-based data and an in-depth explanation should be provided to support the SOAL and SGAL equations, calculations, and assumed values presented in section 5. In addition, MEK was detected at a concentration of up to 120 mg/kg in the Tank 8 area. Proposed SOAL and SGAL should be presented for MEK in this area.

The presentation of the proposed SGALs should not preclude the completion of post-remediation soil sampling to confirm the remediation of chlorinated hydrocarbons- and/or VOCs-impacted soil beneath the site. A description of post-remediation confirmation soil sampling should be included in the remedial action plan.

**Page 7, Section 5.1.** The RAP states that soil sampling for the purpose of analytical testing would not be included with the installation of MLG probes because of a loss of VOCs created by the drilling method. Nevertheless, GTI was successful in completing VOC soil sampling at this site indicating that soil sampling will not result in significant loss of VOCs as stated in the first paragraph of this section. Additional soil sampling and analysis for VOCs should be completed at this site during MLG drilling activities to assess optimal soil vapor probe placement.

**Page 7, Section 5.1.** The flame-ionization detector (FID) cannot detect volatile chlorinated hydrocarbons. The FID should only be used in conjunction with a photo-ionization detector (PID). In addition, five minutes is too long a holding period for field screening of chlorinated hydrocarbons, and may result in a loss of the more volatile constituents prior to field measurement. In our experience, one to two minutes is more appropriate.

**Pages 7 and 8, Sections 5.1 and 6, Figure 2.** The vertical extent of chlorinated hydrocarbons in soil has not been assessed in the Skydrol area (Soil boring SBSW-15/15B). A soil boring with soil sampling should be completed in this area to assess this problem. Proposed soil-gas probe well MLG-4 should be moved closer to the soil boring SBSW-15/15B area and sampled during advancement to characterize the vertical extent. This new placement will enable assessment of the higher VOC concentrations in soil near boring SBSW-15/15B than in the proposed well location shown on Figure 2.

**Page 8, Section 6 and Page 9, Section 7.** ASI suggests that in situ soil gas samples be collected at 10 to 15 foot intervals during the advancement of the MLG well boreholes. In situ gas samples can be collected by advancing an in situ sampling device such as a "BAT" sampler in front of the drill bit. The in situ soil gas data, in conjunction with soil analytical data can be used to assess optimal soil gas probe placement. The probes can be placed into zones with the highest VOC soil/soil gas concentrations. It is possible that more than four soil vapor probes may be installed in each MLG well. The current proposed method with soil gas probes at 50-foot intervals may miss significant zones of VOC-impacted soil. Actual soil probe placement should be based upon in situ soil gas and soil analytical data for VOCs and site geology assessed during advancement of the MLG boreholes.

**Figure 2.** The proposed MLG monitoring well locations should be optimized by moving them in or immediately adjacent to areas that have the highest concentrations of VOCs in the soil. Proposed well MLG-8 should be moved to within the Former Tanks 2 through 5/Deep-Hole Boring Machine areas where chlorinated hydrocarbons were detected in the soil. To be closer to deeper and higher concentrations of VOCs, well MLG-7 should be moved closer to the south end of Cross section J-J' and well MLG-5 moved closer to soil boring SBP2-17. In each of these areas, one soil vapor probe should be placed at 25 to 30 feet in depth to assess the near surface VOC soil gas concentrations.

In summary, the VOC plan is too generic and does not specifically address actual zones of soil impacted by chlorinated hydrocarbons. Proposed soil and soil gas action levels are generally above maximum detected VOC concentrations found at the site. Suggested changes to the VOC RAP as stated above should be made. Further, because Allied is a Potential Responsible Party (PRP) for contaminated groundwater beneath the site, further assessment and future remediation efforts at this site may be subject to RWQCB/Superfund requirements and guidelines. Regulatory actions may cause additional wells and borings to be installed on the site in the proposed parking area and inside of the proposed Home Depot building. These activities may be disruptive to proposed operations on the Home Depot parcel with drilling, groundwater sampling, and possibly remediation equipment occupying parking spaces and building space during required regulatory activities.

## GENERAL RECOMMENDATIONS

This section presents general recommendations related to the overall assessment and remediation of the subject parcel. ASI recommends the following actions at the site:

- The vertical extent of TPH in the Tank 11 area, hexavalent chromium in the Plant 1 Plating area, and chlorinated hydrocarbons in the Skydrol area must be assessed. It is unknown if compounds from these areas have affected the groundwater beneath the subject parcel or will affect the parcel in the future. Under no circumstances should Home Depot be responsible for the monitoring of or the remediation of groundwater containing hexavalent or trivalent chromium or other associated heavy metals (lead, zinc, cadmium, nickel, and copper) beneath the proposed parcel or adjacent parcels.

- Home Depot must reserve the right to conduct oversight or freely inspect groundwater monitoring, remediation pilot testing, well drilling/installation, soil gas sampling/monitoring, and remediation activities and to collect related samples of vapor, groundwater, soil, treatment media, or treatment byproducts at the proposed and adjacent parcels.

- At a similar chlorinated hydrocarbon contaminated site in the Los Angeles area, the RWQCB/California EPA required the PRPs to assess chlorinated hydrocarbons at depth within the regional aquifer. Different chlorinated hydrocarbon compounds will occur at different depths (become stratified) within a chlorinated hydrocarbon contaminated aquifer. It is possible that these regulatory agencies may require potential chlorinated hydrocarbon stratification within the aquifer beneath the subject parcel be assessed and remediated. The assessment would likely require additional nested groundwater monitoring wells or in situ sampling of groundwater during borehole advancement at the site.

- "Clean closure" of soils shallower than 20 feet can be achieved at this site. These soils can be readily excavated to 20 feet using a backhoe or an excavator for treatment or disposal. "Clean closure" is the complete remediation of contaminated soils at the site resulting in regulatory site closure (no further regulatory actions and issuance of closure documents). It is recommended that clean-up levels for shallow soils (less than 20 feet in depth) be less than 100 mg/kg TPH (rather than 1,000 mg/kg) and background levels for hexavalent chromium and VOCs. Soils with hexavalent and trivalent chromium concentrations above background levels in the Plant 2 plating area of the site should be excavated and disposed of offsite. "Clean closure" is recommended due to the possible re-excavation of remediation areas during construction of the proposed Home Depot facility and to prevent problems with VOC gas migration in the shallow soils.

## CONCLUSIONS

Based upon the results of the review presented in this letter, ASI has prepared the following conclusions.

**Vadose Zone Soils.** TPH, VOC, and hexavalent chromium impacted soils above the regional water table of 180 to 220 feet in depth can be successfully remediated at the subject parcel within two years. Shallow impacted soils less than 20 feet in depth can be excavated and treated or disposed of within approximately three months after authorization to proceed. Construction of the proposed Home Depot facility can start following completion of excavation and backfilling activities. Soils containing TPH and VOCs may be treatable and reused at the site. Soils containing hexavalent chromium from the Plant 2 plating area (within the proposed Home Depot parcel) should be excavated and treated or disposed of offsite. Under no circumstances should soils excavated from the adjacent Allied parcel be allowed to be stockpiled, treated, or used as backfill on the proposed Home Depot parcel. "Clean closure" of these shallow soils can be achieved at this site.

Remediation of VOC-impacted soils deeper than 20 feet may be conducted for up to two years. This remediation can be conducted during and after construction of the proposed Home Depot facility with limited disruption to Home Depot operations. Remediation construction activities should be coordinated closely with the Home Depot facility construction and operations. Some proposed remediation wells, piping, and other equipment will have to be located within the Home Depot facility.

**Regional Aquifer and Aquifer Fringe Zone.** The existence of chlorinated hydrocarbons in the groundwater is a regional problem and the subject of Superfund assessment and cleanup efforts. Chlorinated hydrocarbons do occur in the groundwater beneath the subject parcel. The RWQCB or other cognizant agencies may require further assessment and remediation activities at the site or on a regional scale. The USEPA/California EPA/RWQCB may require funds from the PRP to finance a local and a regional assessment and remediation of the problem. Home Depot cannot be held responsible for these Superfund or similar actions. Even though Allied may not have caused the chlorinated hydrocarbons in the groundwater beneath the subject parcel, Allied has been named as a PRP by the RWQCB/California EPA. The costs associated with the local and regional Superfund assessment, monitoring, and remediation are unknown and cannot be estimated until the potential limits of liability to the regional and local groundwater problems are fully assessed. Under no circumstances should Home Depot be considered a PRP for this site or be made responsible for costs associated with PRPs in the region.

Regulatory actions may cause additional wells and borings to be installed at site in the proposed parking area and inside of the proposed Home Depot building. These activities may be disruptive to proposed operations on the Home Depot parcel with drilling, groundwater sampling, and possibly remediation equipment occupying parking spaces and building space during required regulatory activities.

## LIMITATIONS

The services provided, judgements rendered, findings, recommendations, specifications, or professional opinions have been presented, within the limits prescribed by Home Depot and its representatives, after being prepared in accordance with generally accepted professional engineering and geologic practices. There is no warranty or guarantee of site conditions, either expressed or implied. This report has been prepared solely for the use of Home Depot and any reliance on this report by third parties shall be at such party's sole risk. ASI would be pleased to meet with Home Depot and its representatives to discuss this document and associated issues if requested to do so. If you have any questions concerning these reviews, recommendations, or conclusions, please call me at (619) 560-8552 or Mr. John Martin at (303) 980-0036.

Sincerely,

Len Sinfield, R.G.
Senior Geologist

Sarah J. Battelle, R.G.
Principal Geologist

cc: John Martin, ASI Denver
Dennis McCarthy, Real Estate Broker
Mark Shenouda, Greenberg Farrow Architects
Paul Geiger, Geiger and Weber

# ATTACHMENT 1

## Non-TPH and TPH products identified in each area of the project site

## Non-TPH and TPH products identified in each area of the project site

**Former Tanks 2, 3, 4, and 5, and Deep-Hole Boring Machine Sump Areas (Adjacent parcel).** The former tanks may have held hydrocarbon blend 10-16 ("Pearl kerosene), napthanic/paraffinic hydrocarbon ("cleaning solvent), leaded gasoline, and unleaded gasoline. TPH was detected in the soils in these areas at a concentration of up to 31,600 mg/kg. These areas also have chlorinated hydrocarbons (up to 300 µg/kg of 1,1,2-Trichloro-1,2,2-trifluoroethane). In addition, as noted in the September 15, 1993 "Step-Out and Deeper Soil Boring Report" prepared by Groundwater Technology, Inc, the lateral extent of TPH has not been defined in the Deep-Hole Boring Machine Sump area.

**Vapor Degreaser #2 and Plating Area (Adjacent parcel).** ASI has not been able to identify the TPH sources in these areas through our record search. It is possible that the TPH detected (of up to 20,000 mg/kg) may be from petroleum hydrocarbons removed during "degreasing" activities in the areas. Elevated concentrations of hexavalent Chromium (up to 1,700 ppm) and chlorinated hydrocarbons (1,800 µg/kg of 1,1,1-TCA, 1,000 µg/kg of TCE, and 63 µg/kg of PCE) occur within the TPH-affected soil in this area. In addition, as noted in the September 15, 1993 "Step-Out and Deeper Soil Boring Report" prepared by Groundwater Technology, Inc, the vertical extent of hexavalent Chromium in the plating area has not been defined.

**Backwash Sump Area (Soil Boring SBP1-44 Area).** ASI has not been able to identify the TPH sources in this area through our record search. TPH in the soil was detected at a concentration of up to 1,500 mg/kg in this area.

**Overlap Area, Parts Cleaning Room, and Military Aircraft Assembly Area.** Hydraulic fluid was used in these areas and TPH was detected at a concentration of up to 60,000 mg/kg in the soil. Toluene was also detected at a concentration of up to 1,000 µg/kg in the soil. Chlorinated hydrocarbons with TPH occurs in these areas with 3.6 mg/kg of PCE, 3.3 mg/kg of TCA, 0.72 mg/kg TCE. In addition, as noted in the September 15, 1993 "Step-Out and Deeper Soil Boring Report" prepared by Groundwater Technology, Inc, the lateral extent of TPH has not been defined in the Overlap area.

**Tank #8 Area.** Hydraulic fluid and solvents were used in this tank. TPH was detected at a concentration of up to 27,800 mg/kg. Methyl ethyl ketone was found in the TPH impacted soils with a maximum concentration of 120 mg/kg.

**Heat Treatment Area (Adjacent parcel).** Heavy metal and chlorinated solvent solutions were used in this area, but were not detected in any soil samples collected in this area. ASI has not been able to identify the TPH source in this area through our record search. TPH in the soil was detected at a concentration of up to 1,500 mg/kg in this area.

**Former Tank #11.** Waste oils and chlorinated solvents were stored in this tank. TPH in the soil was detected at a concentration of up to 22,600 mg/kg and chlorinated solvents were also detected at concentrations of up to 32 mg/kg TCA and 7.9 mg/kg PCE at 15 feet in depth and up to 1,250 µg/kg PCE at 20 feet in depth. In addition, as noted in the September 15, 1993 "Step-Out and Deeper Soil Boring Report" prepared by Groundwater Technology, Inc, the vertical extent of TPH has not been defined in the Tank #11 area.

**Skydrol Area.** Hydraulic oils (Skydrol) and chlorinated solvents were used in this area. TPH in the soil was detected at a concentration of up to 4,800 mg/kg and chlorinated solvents were also detected at concentrations of up to 120 µg/kg TCA, 45 µg/kg PCE, 36 µg/kg TCE, and 130 µg/kg dichloromethane. In our review, ASI has noted that the vertical extent of chlorinated hydrocarbons has not been defined in this area.

| CALIFORNIA ANNOTATED SITE MAP | BUSINESS NAME: HOME DEPOT #6613 | ADDRESS: 11600 SHERMAN WAY NORTH HOLLYWOOD, CA 91605 | Map #:1 |
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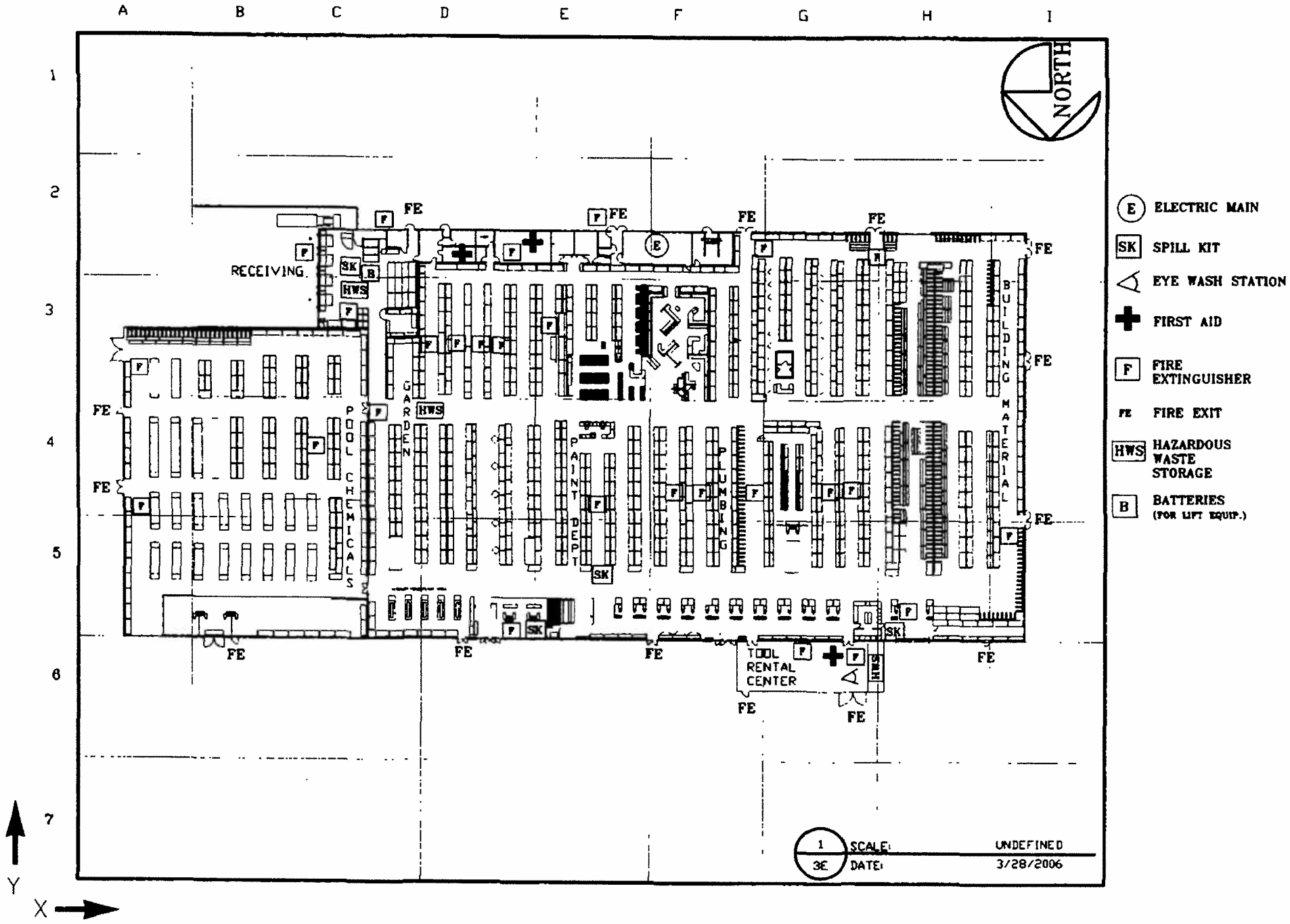


- (E) ELECTRIC MAIN
- SK SPILL KIT
- EYE WASH STATION
- FIRST AID
- F FIRE EXTINGUISHER
- FE FIRE EXIT
- HWS HAZARDOUS WASTE STORAGE
- B BATTERIES (FOR LIFT EQUIP.)

| CALIFORNIA ANNOTATED SITE MAP | BUSINESS NAME: HOME DEPOT #6613 | ADDRESS: 11600 SHERMAN WAY NORTH HOLLYWOOD, CA 91605 | Map #:2 |
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